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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,868	02/08/2002	Koji Tanimoto	016907-1362	8355

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EXAMINER

PHAM, HAI CHI

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/067,868

Applicant(s)

TANIMOTO ET AL.

Examiner

Hai C Pham

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 12-16 is/are pending in the application.
- 4a) Of the above claim(s) 12-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 16 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☒ Certified copies of the priority documents have been received in Application No. 09/461,210.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,4. 6) ☐ Other:

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Species I, which includes claims 1-7 and 16, in Paper No. 7 is acknowledged.

### *Claim Objections*

2. The following claims are objected to because of the following informalities:

#### Claim 3:

- Line 12, "a preset position" should read --the preset position-- since it was already defined in the parent claim 1.

#### Claim 4:

- Line 25, "a preset position" should read --the preset position--for the same reason as above.

#### Claim 5:

- Line 14, "a preset position" should read --the preset position--.

#### Claim 7:

- Starting at line 7, "an output which continuously decreases with a variation in the passage position of the light beam" should read --an output which continuously decreases with a variation in the passage position of the light beam in the sub-scanning direction--, which would clearly describe the shape of the fifth beam position detector without any ambiguity,

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- Starting at line 14, "an output which continuously increases with a variation in the passage position of the light beam" should read --an output which continuously increases with a variation in the passage position of the light beam in the sub-scanning direction--, which would clearly describe the shape of the sixth beam position detector without any ambiguity.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshikawa et al. (U.S. 5,982,402).

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Yoshikawa et al., an acknowledged prior art, discloses a color image forming apparatus comprising a light beam light beam emitting means (38-1) for outputting a light beam, a beam scanner (polygon mirror 44-1) for reflecting the light beam output from said light beam emitting device towards a to-be-scanned surface (16-1) to scan the to-be-scanned surface by use of the light beam in a main scanning direction, a first beam position detector (the optical sensor 60-1 having a triangular shape delimited by the triangular window 54-1) for detecting the light beam scanned on the to-be-scanned surface by said beam scanner and generating an analog signal which is continuously changed with a variation in the passage position in a sub-scanning direction perpendicular to the main scanning direction of the light beam (as shown by the detection signal 84 whose width is dictated by the passage position of the light beam over the optical sensor 60-1 with respect to the sub-scanning direction) (Figs. 6A-6D) (col. 6, lines 27-63), and a controller (control circuit 300) for controlling the position of the light beam scanned by said beam scanner on the to-be-scanned surface to a preset position based on the result of detection of said first beam position detector.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa et al. in view of Tanimoto et al. (EP 0 797 343 A2).

Yoshikawa et al. discloses all the basic limitations of the claimed invention except for the second and third beam position detectors, the integrating means and the converting means.

Tanimoto et al., an acknowledged prior art, discloses all the basic limitations of the claimed invention including a plurality of light beam emitting devices (31a-31d), a beam scanner (36), light beam passage position changing means (33a-33d) for changing the passage position of the light beam in the sub-scanning direction, a controller determining one of the plurality of light beams as a reference beam and changing the relative passage position of the remaining light beams with respect to the passage position of the reference light beam by use of said light beam passage position changing means, a second beam position detector (S1) generating a first timing signal, an integrating means (62), a third beam position detector (S2) generating a second timing signal, a converting means (63) for converting the result of integration in response to the second timing signal.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Yoshikawa et al. with the aforementioned teachings of Tanimoto et al. The motivation for doing so would have been to determine the time frame during which the light beam would accurately detected.

***Allowable Subject Matter***

7. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the primary reason for the indication of the allowability of the claimed invention, with respect to claims 5-7, is the inclusion of the limitation, in the combination as currently claimed, that the light beam scanning apparatus includes a first beam position detector being configured as a pair of second and third beam position detectors, the second beam position detector generating an output, which continuously decreases with a variation in the passage position of the light beam in the sub-scanning direction, while the third beam position detector is disposed separately from the second beam position detector in the sub-scanning direction and generates an output, which continuously increases with a variation in the passage position of the light beam. the combined limitations are not found taught or fairly suggested by the prior arts made of record, considered alone or in combination.

***Contact information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on T-F (8:30-5:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin R. Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722, (703) 308-7724, (703) 308-7382, (703) 305-3431, (703) 305-3432 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



HAI PHAM  
PRIMARY EXAMINER

June 14, 2003